

6050 & 4050 DIN Limit Controllers

- Universal Input
- Jumperless Configuration
- Auto Detected Hardware
- Standard 5A Latching Limit Relay
- Up to 3 Outputs
- 1/16 & 1/4 DIN Sizes
- Windows PC Configuration Software
- Retransmit Process Value or Limit Setpoint
- Process Alarms
- Optional MODBUS (RS-485) Communications
- Optional digital input and remote reset
- Optional 10V SSR Driver Output
- Optional 24VDC Transmitter Power Supply
- UL, cUL, CE, CSA & FM Approved
- 3 Year Warranty



Description

The Chromalox 50 Series Limit Controllers provide you with a comprehensive feature list and the flexibility to meet your most demanding process needs. This series is affordable, easy-to-use and adaptable to simplify all aspects of limit control.

This fail-safe protection device may be used to prevent damage to equipment or products. It will shut down a process when the preset parameter threshold is realized. The controller cannot be reset until the process has returned to an acceptable parameter condition.

The 50 Series Limit Controller maintains the maximum (High Limit Action) or minimum (Low Limit Action) process variable value since the last reset occurred. Additionally the controller records the accumulated time for which the limit has been exceeded since this parameter was last reset.

The 50 Series Limit Controllers are an ideal complement in both design and esthetics to its cousin, the Chromalox 40 Series Temperature/Process Controllers.

Features

- User-friendly functionality
- High/Low Limit Alarm
- Universal Input
- Digital Inputs
- Intuitive ChromaWare™ Configuration Software
- Easy to use HMI
- Jumperless and auto-hardware detection configurations
- 24 VDC transmitter power supply
- Dual, red over green, 7 segment LED
- 10 VDC SSR Drive Output
- 4 digit upper and lower displays
- MODBUS communication
- Plug-in output modules
- Process Alarms
- Outputs 2 and 3 are user-selectable and customizable for each application
- Output Options:
 - Relay, SSR Driver, DC linear, Triac, 24 VDC transmitter power supply, Retransmit PV or Limit Trip Setpoint
- Remote reset for digital input option

6050 & 4050 DIN Limit Controllers (cont'd.)

Specifications

FEATURES

- Human Interface4 button operation, dual 4 digit 10mm & 8mm high (6050) and 13mm & 10mm high (4050) LED displays, plus 4 LED indicators
- PC ConfigurationOff-line configuration from PC serial port to dedicated config socket (comms option not required). ChromaWare Configuration Software for Windows 98 or higher.

INPUT

- ThermocoupleJ, T, K, L, N, B, R, S, C; Pt Rh20% vs. Pt 40% Rh
- RTD3-wire, PT100
- DC Linear0 to 20mA, 4 to 20mA, 0 to 50mV, 10 to 50mV, 0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V. Scaleable -1999 to 9999, with adjustable decimal point
- Impedance>10M ohm for the thermocouple and mV ranges, 47k ohm for V ranges and 5 ohm for mA ranges
- Accuracy± 0.1% of input range ±1 LSD (T/C CJC better than 1°C)
- Sampling4 per second, 14 bit resolution
- Sensor Break Detection<2 seconds (except zero based DC ranges), limit output opens, low alarms activate for RTD, mA or V ranges

OUTPUTS & OPERATIONS

- ConfigurationOutput 1 (limit relay) fixed; outputs 2 and 3 (alarm relay) are user-selectable and customized based on desired application; Process Alarm: Reverse or direct. Choose from the following output types:
- Max # of Outputs3 for alarm, 24 VDC transmitter power supply or retransmit of process value/limit trip setpoint
- Limit RelayFixed, SPDT; 240VAC 5A resistive; Lifetime >100,000 operations at rated voltage/current
- Alarm RelaysOptional SPDT; 240VAC 2A resistive; Lifetime >500,000 operations at rated voltage/current. Modes (Alarm 1 and 2): High/Low, Band, Deviation, logical OR/AND
- Control SSR Driver OutputsOptional drive capability: >10 VDC nominal into 500 ohm minimum
- Triac OutputsOptional 0.01 to 1A AC, 20 to 280Vrms, 47-63 Hz (Limit 2)
- DC Linear OutputsOptional 0-20mA, 4-20mA into 500 ohm max; 0-10V, 1-5V, 2-10V, 0-5V into 500 ohm min; Outputs have 2% over/under drive applied; Accuracy +0.25% (mA into 250 ohm load, V into 2k ohm load); degrading linearity to +0.5% for increasing burden to specified limits
- Transmitter Power SupplyOptional 24 VDC (Limit 1)
- Communications2 Wire RS485, 1200 to 19200 Baud, Modbus protocol
- Digital InputSelects between 2 setpoints or Auto/Manual control. Volt free or TTL input
- Remote Setpoint Input0 to 20mA, 4 to 20mA, 0 to 5V, 1 to 5V, 0 to 10V or 2 to 10V. Scaleable -1999 to 9999. Local/Remote setpoint selected from front panel

OPERATING & ENVIRONMENTAL

- Temperature & RH0 to 55°C (-20 to 80°C storage), 20% to 95% RH non-condensing
- Power Supply100 to 240V 50/60Hz 7.5VA (optional 20 to 48V AC 7.5VA/22 to 65V DC 5 watts)
- ProtectionFront Panel: NEMA 4, IEC IP66 Behind Panel: IP20
- StandardsFM, CE, CSA, UL & cUL recognized

Model	X	Y	F	D	W	H
4050	3.78" (96mm)	3.78" (96mm)	0.43" (11mm)	3.93" (100mm)	3.62" (92mm)	3.62" (92mm)
6050	1.89" (48mm)	1.89" (48mm)	0.35" (9mm)	4.33" (110mm)	1.77" (45mm)	1.77" (45mm)

